# SANTA CRUZ BIOTECHNOLOGY, INC.

# RAGE (E-1): sc-74473



#### BACKGROUND

Advanced glycosylation end products of proteins (AGEs) are nonenzymatically glycosylated proteins that are associated with a variety of conditions, including diabetes and other vascular disorders, as well as amyloidosis. These proteins regulate cellular functions via specific cell surface acceptor molecules, such as RAGE (receptor for advanced glycosylation end products). RAGE is a type 1 membrane protein that is found on the surface of endothelial cells, mononuclear phagocytes and vascular smooth muscle cells. Binding of AGEs to RAGE results in the induction of cellular oxidant stress and activation of the transcription factor NF $\kappa$ B. Evidence suggests that the induction of oxidant stress results in the activation of an intracellular cascade involving p21 Ras and MAP kinase, which leads to activation of transcription.

#### **CHROMOSOMAL LOCATION**

Genetic locus: AGER (human) mapping to 6p21.32.

#### SOURCE

RAGE (E-1) is a mouse monoclonal antibody raised against amino acids 1-300 of RAGE of human origin.

#### PRODUCT

Each vial contains 200  $\mu g$  IgG\_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RAGE (E-1) is available conjugated to agarose (sc-74473 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-74473 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74473 PE), fluorescein (sc-74473 FITC), Alexa Fluor<sup>®</sup> 488 (sc-74473 AF488), Alexa Fluor<sup>®</sup> 546 (sc-74473 AF546), Alexa Fluor<sup>®</sup> 594 (sc-74473 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-74473 AF546), Alexa Fluor<sup>®</sup> 594 (sc-74473 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-74473 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-74473 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-74473 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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#### **APPLICATIONS**

RAGE (E-1) is recommended for detection of RAGE of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:100), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for RAGE siRNA (h): sc-36374, RAGE shRNA Plasmid (h): sc-36374-SH and RAGE shRNA (h) Lentiviral Particles: sc-36374-V.

Molecular Weight of RAGE: 46 kDa.

Positive Controls: human lung extract: sc-363767.

### **STORAGE**

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

#### DATA





RAGE (E-1): sc-74473. Western blot analysis of RAGE expression in human lung tissue extract.

# RAGE (E-1): sc-74473. Western blot analysis of human recombinant RAGE.

### **SELECT PRODUCT CITATIONS**

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- Miyauchi, Y., et al. 2021. Molecular mechanism of dihydropyrazine-induced cytotoxicity: the possibility of an independent pathway from the receptor for advanced glycation end products. J. Toxicol. Sci. 46: 509-514.
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## PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.